



Exhibit A

## OPERATIONAL LISTS FOR SIMULTANEOUS WAFER SCHEDULING AND SYSTEM EVENT SCHEDULING

5 Jaideep Jain, Stanley P. Liu, Janet E. Yi, Eileen A.H. Wong, Sofya B. Malitsky, and  
Thomas Hentschel

### CROSS-REFERENCE TO RELATED APPLICATION

10 This application claims priority on and incorporates by reference in its entirety  
United States Provisional Application No. 60/157253, entitled "OPERATIONAL LISTS  
FOR SIMULTANEOUS WAFER SCHEDULING AND SYSTEM EVENT SCHEDULING,"  
filed on October 1, 1999, by Jaideep Jain, Stanley P. Liu, Janet E. Yi, Eileen A.H.  
Wong, Sophia B. Malitsky, and Thomas Hentschel.

### 15 BACKGROUND OF THE INVENTION

#### 1. Field Of The Invention

This invention generally relates to semiconductor wafer processing systems, and  
more particularly to methods and associated apparatus for scheduling the processing of  
semiconductor wafers.

#### 20 2. Description Of The Background Art

Semiconductor devices are fabricated using specialized wafer processing  
systems, which typically have several modules for performing various operations on a  
wafer. FIG. 1A shows a schematic diagram of an exemplary wafer processing system  
100 in the prior art. System 100 has several modules including modules 101-106. A  
25 robot 107, which is part of a transfer module not specifically shown, is used to move  
wafers from one module to another. System 100 further includes a computer 111 and a  
data acquisition and control system 112 for controlling various control elements 113